Abstract

A receiver 102 connected to a plurality of reception antennas 121 and 122 includes a propagation path correlation estimation circuit 108. The propagation path correlation estimation circuit calculates a correlation value of each propagation path between each of transmission antennas 111 and 112 and each of the reception antennas and transmits the calculation result as propagation path correlation information (S_{COR}). A transmitter 101 connected to a plurality of transmission antennas includes a spread code assigning circuit 106. According to the propagation path correlation information, the spread code assigning circuit assigns only spread codes orthogonal to each other for the transmission antenna corresponding to a correlation value exceeding a threshold value and, for a transmission antenna having no propagation path of a correlation value exceeding the threshold value, assigns a spread code without considering orthogonality to a spread code in the other transmission antenna.